# **APPENDIX F**

### LABORATORY ANALYSIS OF POST DISPOSAL SAMPLES

This appendix contains the results of laboratory analyses of four samples taken after all TCRA activities were terminated at Camp Grant, Illinois. The samples include one water/ice, one sand and two composites as described in Section 4. Concentrations and all semivolatile and nitroaromatic / nitramine compound were below the MDL. All metals were within the Illinois range of values except for mercury. It appears that mercury levels in the sand and soil samples are the same and are outside the range of 0.02 to 0.99  $\mu g/gsoil$ .



### (344-35TER UK, SUITE 1 - HIIM (SVI) = ALARAMA 35316 • 305.) 533-9110

17/9/1995

### emoratory appose

Higher Michigle Research Corporation 4000 5. Pomorial Parway Succession, AL 35815

Abba: Pot Morein

Sample ED: Molom Log 05111409000 Buts Deserved, 11/16/1995

Eat. Toolt 1418 Ship-in Late Sambling: .000-11-14 mine Sambling: .0000

Porchage Object My., Okbie:

| Palaketel  | (04) Its   | Майльод   | Analysi Foto Time    |
|--|--|---|----------------------|
| Finance Lopper(*) *Aa (T) Chromium (T) Hormory (F) Forest (D) Flokel (T) Forest (H) Lanc (T) Lanc (T) Lanc (T) Carmon (T) Citanines (T) Litanine (T) | 0.160 mg/f. <pre>% 0.40 mg/f. % 0.40 mg/f.</pre> | 4110B<br>2010<br>0010<br>3010<br>5010<br>5010<br>5010<br>4010<br>4010<br>6010<br>5010 | ## 11 20-95 1685  fo |
|  |  |   |                      |

### Aethod Scurces

MEAN AST Mathews for Evaluating Solid Walls, OM DGC Fed (C), MEAN-Worthams for Chartel Analysis of Mater and Misses (1967) Francetd Matheds for the Summing Live of Mater and ouble water. 19th Ec. 40 CTR wart 196 PROST Panual of Amelypical Mechanic (1984)



### GC/M6 Варае; UBEPA Mcthod 8270/62%

Clion : National Research Communities Assumed Description 9611146920 Matrix : WATER

Analysis F.F. Pocks

Laboratory No. 1418-3205-31 Date Rosstvan: 11: 666

Thito Estables: 107,7435 Daw Acadyand: 11/2668

| <b>'</b>   | MD61         | Cuses   | 1                              | MELL   | i Ceasu        |
|--|--------------|---------|--------------------------------|--------|----------------|
| Companies  | 196/1        | - 100/  | Catores 2 pds                  | 100    | 186            |
| Dia: 2 Informating The Are :   | 100          | EDATO1. | 1 Calescophony, shenylethed    | 7.00   | EMDL           |
|  | 100          | DMDL    | Planette State (150.15)        | 100    | 3 <b>6</b> 000 |
| 1,2-Did ilm <b>eter</b> sene   | 100          | FOMODIL | A233612110                     | 100    | JMD1.          |
| _4-E1:thloreben copp   | 100          | EMEL    | Devectilotalera se se          | 100    | EMD1           |
| Bio!2 enloreisocco wijetliaz   | 166          | Sturpt. | Pierraifiroso                  | 100    | EMID)          |
| М-М15токой інпертиру подде   | 166          | BMCL    | Anthragene                     | 1 700  | PNT⊃L          |
| Hattartinconth.pg.   | 100          | DMUL    | Dibec of platholate            | 100    | EM.)L          |
| N trobeczene   | 11.1         | SMUL    | Facenthera                     | 130    | INCL           |
| Là bật kươn n  | 200          | BMOL    | Pyreae                         | 1.0    | JMI:L          |
| DistBroker address) radio and  | 1881         | BMOL    | Dunyibaneya y haha noe         | 100    | BMDL           |
| 1,2,4/Erreniervesa sano  | 199          | BMOD    | 0,0-Die dorobenzeitige         | 1 65   | 15341JIL       |
| Napht' pileus  | 100          | RVCC    | Beattelu) and my some          | 133    | DWDL.          |
| Hazachlutelutadagga  | 100          | BATAL   | Chrysone                       | 100    | BXDL           |
| 2 Ohlomaaphthisiere  | 130          | HVIN    | Fix 7-ethy Cossylly htha lates | 100    | BVDI.          |
| Der-Ayl pb#be@ca   | 190          | BMDL.   | Di-procty/ philiple to         | 100    | BVTX           |
| G&Duites, oluene.  | 140          | BMDF    | Plans retributes comments      | :00    | DATDE          |
| écer aphthy en e   | 100          | ממעונ   | Bostok) flormentage            |        | EMIN.          |
| Mooneybthene   | 103          | BMDL    | Выс жей агрупной               | 100    | EMDL           |
| ՀՀ-Dailinto իայլայ   | #¥           | BALL.   | Ladare ( . A. 3 ed)pyrer c     | 100    | EMDI.          |
| Lastny, pisthaleta   | 144          | DMDL    | Disease at the drawer          | !      | EMDL           |
| Benestine  | 200          | LMMDL   | Berrarig has pozytene          | 166    | UMDL           |
| f-Rhindoph any, ptearl site-   | 100 (        | EMOI.   | M-Fitzvarskiphany smins        | 100    | BIMID .        |
| S-niteesedi welk impiges   | :00          | FMDI.   | COTTER COMPOUNDS 24            |        |                |
| Period of the control | Ke           | HIMIT   | 2-Medajir sagtindase           | li'i'  | HMDD           |
|  | ļ            |         | <u>'</u>                       | ı      |                |
| SUPERDUATE BEFORE  | <u>≪</u> REC |         | 1 MDL=Alart od Detect.on       | Payler | ₩d ty:         |
| Lindaerweer FIS  | -03          |         | E EMDirefelm Medual            | -      | •              |
| -z1enmoipteoyê<br>estitenvirál4  | 66           |         | Detection Junio                |        |                |
|  | 122          |         | 2 ND= Not Descerained          | Dece 🕓 |                |

Communist of Pre-error indicated EUL and then recubed described limits.

\*\*Tentatively idea of Eed and culantifactively estimated.



### BASE/NEUTRAL-ACID COMPOUNDS GCMS Report.

LEEPA Method 8070/605

Güeta : Nichola Rassaren Coryolearko-

Scopic Decemption: 2822 (4091) Maria, WATER Analysis KW, Parie

-same very No. 1116 8008 01 Ease Received: 11/7/196 Date Americando 17/17/95 Dise Amelyced, 11/2/82\$

|  | MDLi                     | Gancia               | innest libba   | METAL          | Crossé |
|--|--------------------------|----------------------|--|----------------|--------|
| rmpounds   | rgt.                     | vel                  | Ormpozid <u>e</u>  | 10 <u>1</u> 20 | 100    |
| Prevol   | اندر أ                   | BAD                  | 1 Nochwinapathalena                                      | 100            | DMDL   |
| a-Chlorophego)   | 140                      | BMD                  | Poelupitaron-  | 1 -04          | DMDC   |
| 3-Ni .mphen-v  | -00                      | BMDL                 | i- Anthonopholial are                                    | 200            | DMD    |
| 2.4-Dinethylphonol   | 100                      | L-MID.               | I Nitropyrama  | Jeo            | EMD.   |
| ≄+Did.boopmentl  | .00                      | EMD".                | 2.5-10 pheny bexage la                                   | 100            | BMD.   |
| l-Colorn-3-Mechylphene.  | 160                      | EMDL                 |  |                | i      |
| A.9-Ti al. locophenol  | 140                      | FAMO.                |  |                |        |
| 2,4-Dir itro-phorusi   | 800                      | DMDL                 |  |                |        |
| l-Ni <del>trop</del> heuwl   | 200                      | PMTO1.               | ı  |                |        |
| -Methyl-d Ji-Insuincybead:   | 500                      | UMEDIL               |  |                |        |
| *entactionophemi   | 506                      | 5MD1                 |  |                |        |
| - Seinr 9-Me, bylphenal<br>-Macky phonol<br>.4 6-Tricoloropius nal | 100<br>100<br>100<br>100 | RMET<br>BMOL<br>BMOL |  |                |        |
| DIRROGATE RECOVERIES   | 5/F020<br>75             |                      | : MDf = Merhad There-time Line to 2 RV [M = Relew Method | ilene-         |        |
| -Fluirophiseel   | 41                       |                      | Letastion Linut  | l-             |        |
| 4,6 Tabtamopheral  | 35                       |                      | 8 NC= Nov Equators ref                                   | Desta S        | Sec.   |

Community: \* Presence splicesed, it all has then the december limit.

\*\* The officery (conditied and quantility reprinted)



### Nitroaromatics and Nitramines by HPLC USEPA Method 8230

Chang Name: Dichols Basesrok Opposition. Client ID: 9511140900

5EAS 1D 1418 5236 D1

Unto Analyzed: 1623/96 Data Received: 1016/95 Data Extracted: 1629/94

| Cempoand           | MOA    | Сик    |
|--------------------|--------|--------|
|                    | i ngAi | =µ/″ . |
| нмх                | 0.033  | BMD1   |
| <b>X</b> DX        | 1.02   | BMDC   |
| 10.5•FN8           | 1.10   | RMD    |
| 1,340NB            | 6,428  | NB     |
| NU                 | €.51.€ | NH     |
| Tet-yl             | 1.05   | NTA    |
| 0,4,6- <b>41NT</b> | 0.764  | RWDT,  |
| 2-4m-4 <b>2</b> NT | 0.853  | NR     |
| 4-4 m-DNT          | 0.408  | NK     |
| 2/4-DMT            | 375    | BMDL   |
| ₹ <b>/5•DNT</b>    | 2.03   | RWDT . |
| 3-NT               | 1 12   | NR I   |
| 4 NT               | 2.23   | N3     |
| 3-NT               | 1.91   | MR     |

Carriers (RE) ME = Not Requested, BMDL - Bales; meaning in detection limit

Analyst: Eiles Tallman

Amproved:



### THAT DETER DRUGUITE 1 - HUNTSVILLE, ALAGAMA (6815 - 205 / 608 81/10

7.97,449

### Two transmissions (Report

Client: Michole Research Corporation Attn: You Harrin 1946 S. Montrial Porkey

Furtheritie, AN 30815

Semple LD: Boil-9511141012 Date Received 11/16/1995 Punchase Goder So., Quate

149, Kerr 1418-3208-31 Date Sampled: 1998-11-19 Tamb Sampled: 1912

| Paramotor      | Rosulta         | Mod lost | Asolver    | Bate     | Clos |
|----------------|-----------------|----------|------------|----------|------|
| Sitrute        | 0.00 s. pg/kg   | \$110B   | er.        | 11-20 95 | 1402 |
| Capper (T)     | S. G.34 no/ba   | 501.0    | <b>'</b> ⊃ | 17-20-95 | 0853 |
| 1840 (II)      | C 4.0 - payba   | 5010     | 55         | 11-70-95 | 0830 |
| Chaomiana (T)  | 1.76 ng/ka      | 6010     |            | 11 70 05 |      |
| Maximay (T)    | < 2.71 mg/kg    | 5016     |            | 11-20-95 |      |
| Janaan (2)     | 8250 mazka      | 5016     |            | 11-22-95 |      |
| Markel (E)     | 4, 3,59 ump Rug | 13.10    | -5         | 1-20-95  |      |
| EMPARATION (P) | € 56 mg/kg      | 6310     | - 5        | 11-20-95 |      |
| Simp (7)       | 3.55 mg/kc      | 4010     |            | 11 20 05 |      |
| Curation C1    | < 0.66 mg/kg    | 4000     |            | 11-20-03 |      |
| Alementar (T)  | 346 ma/ku       | 9010     | -          | 11-20-55 |      |
| Calcium (T)    | 25755 mg/kg     | 60 I     | -          | 1-70-95  |      |
| tinger Limited | 44 o bycke      | 601%     |            | 11-20-95 |      |

### Method Scorose

EPACTEST Methods the Systemation; Switch Koste, Awards Arman Freewesthods for Commons emalysis to Water and Mastas (1983) Standard Methods for the Teaministian of Motes and Notice whice, 18th Dg. 40 TFR Pol. 188 4 CSH matter of analytical melocols (1991)



### GC/MS Report **USEPA Method 8270/625**

Client: Nichols Research Corporation Laboratory No. 1418-3205-02 Sample Description: 9511141012 Date Received: 11/16/96 Matrix : 80LID Date Extracted: 11/20/96 Analyst: E.F. Parks Date Analyzed: 11/20/95

|  | MDL1   | Cone2  | <u> </u>                                     | MIDL1      | Cone2          |
|--|--------|--------|--|------------|----------------|
| Compounds  | не/Ке  | ησ/Κσ  | Compounds                                    | пе/Ке      | ng/Kg          |
| Bis(2-chloroethyl)ether  | 330    | BMDL   | 4-Chlorophenyi phenylether                   | 330        | BMDL           |
| 1,3-Dichlorobenzene  | 330    | BMDL   | Fluorena                                     | 330        | BMDL           |
| 1,2-Dichlombenzene   | 330    | BMDL   | Azobenzene                                   | 330        | BMDL           |
| 1,4-Dichlorobenzene  | 330    | BMDL   | Hexachlorobenzene                            | 330        | BMDL           |
| Bls(2-chlarmsopropyf)ether   | 330    | BMDL   | Phenanthrene                                 | 380        | BMDL           |
| N-Nitrosodi-n-propylamine  | 330    | BMDL   | Authraceno                                   | 890        | BMD1.          |
| Hezachlorocthone   | 390    | BMDL   | Dibutyl phthalate                            | 330        | BMDL           |
| Nitrobenzene   | 330    | BMDL   | Fluoranthene                                 | 330        | BMDL           |
| Isophorno  | 990    | BMD1.  | Pyrene                                       | 330        | BMDL           |
| Bis(2-chloroethoxy)methane   | 990    | BMDL   | Butylbenzyl plithulate                       | 330        | BMDL           |
| 1.2.4-Trichlorobenzene   | 330    | BMDL   | 3,3-Dichlorobenzidine                        | 930        | BMDL           |
| Nuphthalage  | 330    | BMDL   | Benzo(a)authroseno                           | 880        | BMDL           |
| Heischlorebutudiene  | 330    | BMDL.  | Chrysene                                     | 330        | BMDL           |
| 2-Chloronaphthalesse   | 330    | BMDL   | Bis(2-ethylhexyl)phthalate                   | 930        |                |
| Dimethyl phthalate   | 990    | BMDL   | Di-n-ectyl phthalate                         | 330        | BMDL           |
| 2.6-Dinitrotaluane   | 330    | BMDI.  |  |            | BMDL           |
| Acensphthylene   | 330    | BMDL   | Senzo(b)fluoranthene<br>Benzo(k)fluoranthene | 330        | BMDL           |
| Acenaphthene   | 330    | BMDL   | Вепло(р)рутеце                               | 930        | RMDL           |
| 2,4-Dinitrataluene   | 330    | BMDL   | Indeno(1,2,3-cd)pyrena                       | 330        | BMDL           |
| Diethyl phthalate  | 330    | BMDL   | Dibenzo(a,h)anthracene                       | 980        | BMDI.          |
| Benzedine  | 680    | DMDL   | Benzu(g,lt,i)peryleps                        | 330        | BMDL           |
| 4-Bromophenyl phenyl cther   | 880    | BMDL   |  | 330        | BMDL           |
| N-nitrosodimethylamine   | 330    | BMDL   | N-Nitrosodiphenylamine                       | 330        | BMDL           |
| Hexachlorocyclopantadiene  | 330    | BMDL   | OTHER COMPOUNDS:**                           |            |                |
| Tree rest of the state of the s | 330    | iswity | 2-Methylnaphthalene                          | 850        | BMDL           |
| P(1) HECOTORY A  | # PRG  |        |  | Review     |                |
| SCHROGATE RECOVERIES   | _% REC |        | l MDL=Method Detection Limit                 | Date: C    | 2              |
| Nitrobenzene-D5  | 116    |        | 2 BMDL=Below Method                          | 1          |                |
| 2-Fluorobipheny.   | 115    |        | Detection Limit                              | 1          |                |
| Ferphenyl-di4  | 171    |        | 3 ND= Not Determined                         | Date: [13] | <u>. 5,4 5</u> |

Comments: \* Presence indicated, but less than method detection limit.
\*\* Tentatively identified and quantitatively estimated.



### CCVMS Report UEEPA Mothod 8270,625

Client : Nichalt Rasas ich Corparation.

totagle Description: 9511141612 Matrix : 9014D Analyst M.F. Parks

Echotology No. 1418-0205-02 Data Received: 7st-Asy Data Extracted: 12/30/05 Date Analyzed: 11/20/95

| 230<br>000<br>354<br>330<br>220<br>330<br>1650<br>1650<br>1660 | BALLE<br>SMITE<br>SMITE<br>SMITE<br>SMITE<br>SMITE<br>SMITE<br>SMITE<br>SMITE<br>SMITE<br>SMITE<br>SMITE | 1-Mathylinuphthalend<br>Asstockersine<br>2-Jachonaphthaland<br>1 Niloopyushe<br>7 N-Climotylousuole | 330<br>330<br>340<br>330<br>330   | IIMIXL<br>PMIQL<br>DMIQL<br>BMIX.<br>BMIX.   |
|--|--|---|---|--|
|  |  |   | 1   |  |
| 280<br>250<br>250  | RMDI.<br>BMDL<br>BMDI.   |   | <br> <br>   |  |
| 4 REC 181  |  | J MDL-Mathod Peterson<br>Lexis<br>2 BMD-L-Pelso Melhad  | Geview<br>(C)   |  |
|  | 230)   | 250 BMD1,<br>230 BMD1.<br>250 BMD1.   | 2 REC   I MDL-Mached Detection   Lents    181   2 EMCL-Palse Mathed   141   Lighten Lents | 2 TEC J MDL-Machad Detection Leaves Mathed  181 2 DMCL-Pelac Mathed  181 1 Listerbook Leaves |

Comments: Provence indicated, but 'ess the simetend desertion limits.

\*\* Ten selectly Identified and quantification of inected.



# Nitroaromatics and Nitramines by HPLC USFFA Method 3330

Client Name: Nichels Retenart Corporation Chert 80: 9611141012

SEAS (D: 1/18/\$206-02)

Date Arial good 11/2/95 Date Received: 1/16/95 Date Extracted 11/20/94

| Cempourd   | MDL<br>ng Wa   | Cons<br>ag/Rg                                  |
|--|--|--|
| HMX<br>RDX<br>- 8.5-TMD<br>- 3-10NB<br>N3<br>Tony.<br>2 a,6-1NT<br>2 Am DNT<br>4 Am-DNT<br>2.4-5NT | 26.1<br>40.5<br>45.8<br>17.1<br>22.5<br>42.1<br>36.1<br>34.1<br>F7.6 | BMDI. BMUL BMUL BMUL BMDL NB NR NR NR NR NR NR |
| 8,5-EMF<br>2-NT<br>4-NT<br>3-NT  | 44.7<br>44.7<br>46.3<br>76.9   | EMIL<br>NR<br>NR<br>NR                         |

| Tommerus: $NR = Nuc$ Renorsted | Billin = Pelow minumam dalestion limit |
|--------------------------------|--|
| A≡alyst: Klise Tallmar,        | $\sim$                                 |
| Approved:                      | _O( &~                                 |



### 1604 OSTER DR., BUTE 1 • FUNTSYILLE, ALABAMA 33514 • 235 1539-5110

11729/1950

### laboratory Report

Clickt: Michols Research Convertion

4040 S. Memorial Parkway Rongsyille, Mt 35315

ALLY: The Machille

Sample 10: Scil-Scil-Scill4101: Date Received: 11/10/1981 Purbboso Cider No.: Quoto

last Mote 1418-5108-03 Cate Sampled: 1995-17-15 Came Sampled: 1015

| Palarecel  | Result a   | Method   | Acalyst     | Lette   | .ame  |
|--|--|--|-------------|---|---|
| Palmetel  Sticete Papper, 5 Land (7) Chromium (1) Neromny (2) Barina (T) Fickel (T) Landarium (n) Sinc (T) Cambion (T) Cambion (T) | Results  0. Fill ing/kg  4. // ing/kg  4. 3.12 ing/kg  5. 3.19 ing/kg  5. 3.19 ing/kg  6. 2.19 ing/kg  6. 2.19 ing/kg  6. 3.3 mg/kg  6. 0.52 ing/kg  5.20 ing/kg | MPTEN 1<br>4110B<br>8010<br>8010<br>8010<br>8010<br>8010<br>6010<br>6010<br>6010 | *##6355533  | 14TP 11-20-95 11-20-95 11-20-95 11-20-95 11-20-95 11-20-95 11-20-95 | 1540<br>0600<br>0600<br>0600<br>0600<br>0600<br>0600<br>0600<br>0 |
| Calcing (r)<br>? (adica (r)  | 24.9%2 (54.7kg)<br>24.3 (54.7kg)   | 9010<br>9010   | <b>-</b> -1 | 11-20-95<br>11-20-95  | 0360  |

### Mathed Conces

ESE Test Metable for Evoluting Bulli waste, 69-815 And 50. ESE-Neuros for Chartes' Ambigais of Warer and Waster (1982) Standard Metabos for the Essminathon of Vator and Massewater, 18th Ed. /D CMR Part LSC WICCO Maccol of Applytical Mechanic (1994)



### GCMS Report DSEPA Method \$2/19925

Client Michels Research Composition. Nample Description: 9611141015 Matrix: 80LIB

Analysis E.R. Parke

Leizmatory No. 1416-1505-15 Date Received: 11/16/96 Date Estracted, 11/1796 Date analysed: 11/23/95

|  | MUL.         | Coneti  | '                                     | MDT           | Control         |
|--|--------------|---------|---------------------------------------|---------------|-----------------|
| Сопровенде   | um/Ru        | . ua/Nu | Compour 4s                            | 112/102       | Nat Title       |
| ***************************************  |              |         | I I I I I I I I I I I I I I I I I I I | 117115        | <br>            |
| Disf2-chluscethyFetl or  | . 3310       | BMI::   | 4-Mille opheryl phenyleden            | 330           | BADL            |
| 1,3-Deplementage   | 3290         | BWDL    | l'Ivaresa                             | \$20          | BMDL            |
| 1,3-Did plejokensens   | 880          | BMIIL   | Audbenzene                            | 440           | BMTH            |
| I_4TithTetr/ren sene   | 3001         | BMDL    | Hozzekkozbanzana                      | 220           | EMEDL           |
| Ba(2 chloroisopropy jet 180  | 300          | DMDL    | Pleasath enc                          | 120           | BMD1            |
| CI-Mitteec#1-n-y-topy/bamine   | 9301         | BMIL    | Azekseeke                             | 116           | EMDL            |
| Hagaphtereothrage  | 990          | BMDL    | Daku երկ թիսիակար                     | 100           | CAMDE           |
| Niunxersens  | 330          | AVDE    | Pitate antinesse                      | 370           | <b>EMDL</b>     |
| Liophorone   | 350          | BALLE   | 1 yrane                               | 954           | EMDL            |
| Dial 2-elektros: Erroyan + Munio   | 380          | RYDY    | Faits Trenapil philips late           | 920           | EMOL            |
| L,M.4Frantorobensene   | £41)         | BMIN.   | 3,5' Dichieranergieling               | 1 880         | CMDL            |
| Mau:diedaua  | 330          | BMD/.   | Fensy (a) anthraces a                 | 330           | EMD1.           |
| Hazeehlorobutralisase  | 480          | BMDC    | Limence                               | 5.20          | PMD1.           |
| 8-Chloronault/halane   | 993          | BMDL    | Eigra-ethylhezy rohtfall og           | 230           | BIATO).         |
| Dimarky: pitchalese  | 22)          | BMT/f.  | Earn color philipping                 | 2340          | HMITH           |
| 26 Drastrotolucos  | 223          | DMDL    | Decar bellion and the re-             | 556           | HMD1.           |
| Scerephthy ene   | <b>5</b> 50  | BMM.    | Remort's Allegan to transport         | ! 880         | HMD1            |
| Stonophehono   | 120          | BMD7    | (lerzo(elpyrene                       | 223           | 334DL           |
| 2,4-D.nitr.radcene   | 44)          | BMD     | Indepo : 2 3 volumente                | 286           | FNITT.          |
| L'asthyl philisiate  | 110          | FINID   | Dibonay a k moderne                   | 880           | MEL             |
| Securitino .   | 660          | DIMED   | Boundary illering leine               | :090          | DMbL            |
| 1-Privings and phanyl other  | 330          | RMID    | N-N± mandaphen ylamino                | 39C           | 2MCL            |
| S-misrosodimethylamine   | 220          | EMMODIA | OTHER COMPOURDS **                    |               |                 |
| Annual large property of the Conference of the C | 056          | BJMDD1  | 2-Methylmophthelions                  | 390           | BMUL            |
|  |              |         |                                       | [             |                 |
|  |              |         | 1                                     | Ferier        | red by:         |
| SURROGATE RECOVERING   | <b>₹</b> HEU |         | NUL-Mathor Detection                  |               |                 |
| •  |              |         | <u> Li cill</u>                       | $17.77 \circ$ | <b>L</b> .      |
| Storekanzono.D5  | 90           |         | 2 BMD i=b+low Method                  | \ \ -         | -               |
| !Photohipheryl   | 98           |         | Detection Limit                       |               |                 |
| Terphanylidia  | 128          |         | © ND Net Datementsed                  |               | < 3 <b>~2</b> 页 |
|  |              |         | 7 1                                   |               |                 |

Communication + Presentes millionistic, but less than metrice distoction less it.

Tenoscovely identifical and quant tolively equipment.



### **СОУИВ Зароті** USKPA Method F2R/825

Client: Michola Raseurch Corporation. Montale Description: 0511141018

Meiria (80MD Analyst h.K. Parks

Laboratory Not. 4, 3-3208-03 Data Received: 11/10/06 Date Extracted: 11/11/98 Date Analysod: 11/90/06

| Companie  | MDLt<br>1970g   | Cone2   | Additional<br>Compounds  | MDL1                 | Jeces<br>wyka   |
|---|---|---|--|----------------------|---|
| Prend 2 Calescephonal 2-Nitrophonal 2-Nitrophonal 2-1-Limethy, phanol 2-4-Ciri Salespie and 4-Ciri erro-3-Methyliphenel 2-4-3-T. idlia: Jahenul 2-Methyliphenel 2-Methyliphenel 3-Methyliphenel 3-Methyliphenel 3-Methyliphenel 4-Methyliphenel 2-Refor 3-Methyliphenel 2-Refor 3-Methyliphenel 2-Limethyliphenel 2-Refor 3-Methyliphenel 2-Limethyliphenel | 7.70<br>880<br>880<br>880<br>880<br>880<br>1850<br>1650<br>1650<br>1650<br>1650<br>1650<br>1650<br>1650 | HMITIL<br>BMDL<br>BMDL<br>BMDL<br>SNICE<br>SNICE<br>SNICE<br>SNICE<br>SNICE<br>BMDL<br>BMDL<br>BMDL<br>BMDL | I-Neithylneph talene<br>Azetaghenene<br>S-a. minakhililene<br>I-Nitropyromo<br>1.5-Siphenyloxazole | 3.90<br>3.90<br>3.90 | HALTI,<br>JILLIAH<br>JILLIAH<br>JILLIAH<br>JILLIAH<br>JILLIAH<br>JILLIAH<br>JILLIAH |
| EURECQATE RECOVERES  Phonoi do 2-Plunsylhens 416 Eribromophers  | 7. HSC<br>101<br>110<br>88  |   | 1 MDL-Method Detection 1 Unit 2 BMDL-Relow Method Denser as Timer 3 ND-Not Determined              | Kartan<br>Ol         |   |

Constructe: \* Presence indicated, but less than method desertor, livin.
-- Tentalizely Mentilized any important soly extincted



# Nitrooromatics and Nitromines by HPLC USEPA Method 8300

(Xien) Peme: Microly Rosen du Eurpare fan

Client ID: 951 | :4 [0.46] SEASTE 1418-3205-00

Date Analyzed: 11/88/05 Date Recoved: 11/8/96 Date Batrocted: 12/20/94

| Соврзана        | ΜΠ)[<br>υσ'ίξε | Come<br>Up/Kg |
|-----------------|----------------|---------------|
| них             | 227            | UMDL          |
| RDX             | 36.5           | AMDI.         |
| 1.5 5-TMB       | 39.6           | 3MDL          |
| `. <b>3-™</b> B | 14,0           | NT.           |
| TAE .           | 1775           | NE            |
| Tetryj          | 50.8           | THE           |
| 2.4_F-TN***     | 26.0           | DATE:         |
| 2-Am-DPT        | 26.7           | MM            |
| 4 Ar-DNT        | 15.3           | NB            |
| 2.4-DNT         | 96.5           | BMDL          |
| F.G-DNT         | 1 70.7         | BMDL          |
| 2-NT            | 38.7           | NR            |
| 4-NT            | 429            | NR.           |
| <u> </u>        | 36.5           | NR,           |

Community  $NR = Net \; Requested, \; DMDL = Below in informing detection limit$ Ω(<u>≫-</u>-><u>\</u>

Analyst, Rliau Tallerna

Approved



1364 CSREE OR, SUITE 1 - ALADRAMA SSORE - \$557 (\$5-9-10)

11/21/1995

STITE DIM MAKE IN

### Caborni Anv. Dopona

Silent Nichols Postanch Comporation 4000 S. Momento' Anthray Burther e, 21 35815

Sample ID; Soil-SSILIA1017 Fate Received: 11:15/1595 Paromese Own. 18., Quite

ымы изир 1401—0200—04 Date Sungledo (1994—11—14 Hime Sampledo (01)

| -Alameret  | Results   | tetzes  | Anolyst Date 7 mg   |
|--|---|---|---|
| Mitrate Copper(I) Look (I) Theority (I) Paramagnet (I) Nickel (I) Potrasium (I) Education (I) Lookel (I) | 2.02 renykry 5.75 matric. 7.1.15 matricy 5.77 mg/kg 5.77 mg/kg 6.77 mg/kg 6.55 mg/kg 6.9 mg/kg 7.25 mg/kg 7.25 mg/kg 70.3 mg/kg 20.95 mg/kg | 400cb<br>600c<br>600c<br>600c<br>600c<br>600c<br>600c<br>600c | 50 11-20-03 3615<br>En 2-11-15 (0)<br>Fro 12-11-15 (0)<br>50 12-11-15 (0)<br>50 10 11 05 1400<br>ED 12-13-65 1400<br>ED 12-13-65 1400<br>ED 12-11-95 1400<br>ED 12-11-95 1400<br>ED 12-11-95 1400<br>ED 12-11-95 1400<br>ED 12-11-95 1400<br>ED 12-11-95 1400 |
| Faturium (C)   | 61 aug/kg   | 5010  | 2p 12-11-95 140h  |

### Молбой Sammaee

bFA Test % Dondo for Evaluating Colid whate, CA-Res Cil ElleFA-Acthoda for Chambal Analysis of Sater and Washer (1989) Standard Actions for the Examina in of Acter and Washer water, 1816 Bd. 40 CDR Farm 106

ARREST Members of Analytical Methods (1984).



### GC/M3 Report USEPA mathod 8278835

Glasut : Nichols Besearch Corporator Somple Description: 95111:1017 Magnix : EOLID

Applyet: E.F. Parks

Luberstry No. 1416-2306-04 Date Received: 1536/06 Date Estimated, 11-1295 Pate Analysis 11-2095

| •                                 | MDLI           | Cann3     | <del></del>                | MEL:                | Carel         |
|-----------------------------------|----------------|-----------|----------------------------|---------------------|---------------|
| Commounds                         | neWe           | 10/Ke     | Community                  | ng/R <sub>L</sub> - | 100765        |
| Ble(Zehltere) byl kelber          | 110            | EMDL      | 4.Chlerophonyl phanylether | 320                 | SNIDI.        |
| 1.2 Diablaroforzers               | 230            | RMD.      | Pleatene                   | 320                 |               |
| 1.3-Dichkretscars                 | 230            | BMDC      | Astronomo                  | 339                 | 3 <b>N</b> IO |
| 1,4-Dicklercken seem              | 190            | KMD.      | Househorsens               | 330                 | 3MDL          |
| Cist Stelling nise pur pelljedjej | 430            | PMD       | Flementhrene               | 996                 | I BMOL        |
| N-N trocods-n-propylamine         | 880            | PWO       | Aplbranes                  | 139                 | BNCL          |
| Beart rections                    | 730            | EMBS      | Dibatri ohthelete          | ספכ ו               | DACL          |
| Mirmhenzane                       | 330            | F.MIDI.   | Tilloton'bene              | 390                 | BNCL          |
| Lang service                      | 326            | CMDL      | Prome                      | 536                 | DMCI          |
| Bis(2-d:lanethosy'meticere        | Sto            | FNID1.    | Retulbency) no halora      | 397                 | BMDL          |
| 124 Trials centerrorma            | ಚಿಕ            | EMDL      | 2.3 Decklor-beneaties      | 330                 | BMDI.         |
| Naph historie                     | 249            | PMDL.     | Baron electrosame          | 330                 | BWIII.        |
| нехоенияминисто                   | 130            | HMELL     | Chryman                    | 3.30                | RMIII.        |
| 2-Chiloronapta: extense           | 580            | HMDL      | Be/2-ethylleushoh.lasu.k   | ,LED                | KYDL.         |
| In-seller olahelada               | 230            | EQM(E) J. | IA n ozyj phthalate        | 330                 | RV.III.       |
| 2.6-Dinitrotolismo                | 200            | DMD1.     | Benz dell'amenthene        | 889                 | RVDT.         |
| Averagh thy lene                  | 580            | (OM UL    | Benzol Lucrenthene         | CEE                 | BALDL         |
| Accomplished                      | C00            | ZMDL.     | Bentole) pro es es         | 333                 | BYDI          |
| 3.4-D britzgooluene               | 330            | 30COL     | hreano(1,3,3-ed-pyrane     | i aan               | RATE          |
| Distilies, phtholiato             | 396            | EMD1.     | Dienes (a, hanch-acene     | 880                 | BMIN          |
| Beneid ne                         | 686            | HIM OL    | Benzely, h. Opery leve     | 330                 | DMDL          |
| L-Breamopheny, phenyl ether       | 950            | ARC DE    | N-Mitromoliphonylamine     | 223                 | BMDL          |
| Nations edited by January         | 350            | BMCL      | OTHER COMPOUNDS:=>         |                     |               |
| Hancahlarvay eleperte és ma       | SE-F           | BMCL      | h Mahyinophilia ecc        | 22)                 | RW1H          |
|                                   |                |           |                            |                     |               |
| SUBROGATE RECOVERIES              | <b>9-38</b> €0 |           | 1 V.DL-Method Detector     | Roman               |               |
|                                   |                |           | 1.tres                     | Dio                 | `             |
| Niterbensane-De                   | k7             |           | 2 BMDL=Sclow Retlact       |                     |               |
| 2-Charabigae.ryl                  | £:             |           | Theodies Limit             |                     |               |
| Perphenyl-e10                     | 141            |           | 3 NU - Not Delectroped     | Decis:¹≧            |               |

Community: \* Provides indicated, but ass than specified detection limit.
\*\* Contained, identified and quantitatively estimated.



### CC/MS Report USBPA Method 8270/925

Client Nicholo Recound: Corporation Barripie Description: 6511 (41017)

Matrix : VILIU Analysis, 2.2, Parko

Laboratory No. 1418 9306 04 Tota Rase vert: 11/1656

July Retracted: 10/17.55 Dute Anaty end: 11/26/56

| Сопровной                                      | MIN.1<br>peKe   | Conet<br>aeffae | Additional<br>Composeds | MDLi<br>colle | Comes.<br>u <b>erK</b> e |
|--|-----------------|-----------------|-------------------------|---------------|--------------------------|
| Phonol   | 320             | RYDL            | 1 Hothylmaphthalone     | 689           | EMOL                     |
| 2-Chicrophecol                                 | 330             | BADE            | PeeLophenoed            | 220           | FJMT31.                  |
| 의 M:teophee.c)                                 | 480             | RWITH           | 2 Aminomphakalere       | 280           | EMDL                     |
| Հ4-⊇նդան հվազա                                 | 890             | BMDC.           | 1-Nitroovie.e           | 830           | EMDL                     |
| 5,1-Dielskoephanni                             | 490             | RWIN            | 5.5-Eiphomyloxazela     | 330           | EMDT                     |
| 4-Chiloro-\$- <b>Idea</b> hyi,disencil         | 890             | BMDL            | 1                       | :             | l                        |
| 1,4,8-Translatoybenet                          | 3\$3            | BMDC            |                         |               | l                        |
| 2,4-TX nitropt small                           | 3600            | THIMIT          |                         |               | l                        |
| A-Ottospinend.                                 | 1660            | BMDL            | ľ                       |               | l                        |
| 2-Methyl-4.6-Digitrooherel<br>Penischlompherel | 1680<br>(FF)    | BMDL<br>Rjalpr. |                         |               |                          |
| OTHER COMPOUNDS.                               |                 |                 |                         |               |                          |
| 2- teles d-Methysphenol                        | 990             | BMDL            |                         |               |                          |
| 4-Ketl + belienn:                              | 320 .           | BMD             |                         | 1             |                          |
| 2,6,5-Tricklotophensi                          | 3340            | BMD             | ļ                       | 1             |                          |
| -,-,,  |                 |                 |                         | 1             |                          |
|  | 1 1             |                 |                         | 1             |                          |
|  | i 1             |                 |                         | 1 :           | i                        |
|  | <b>)</b>        |                 |                         | ]             |                          |
|  | l l             |                 |                         | 1             |                          |
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|  |                 |                 |                         | ! I           |                          |
|  |                 |                 |                         |               |                          |
|  |                 |                 |                         |               |                          |
|  |                 |                 |                         |               |                          |
|  |                 |                 |                         |               |                          |
|  |                 |                 |                         | Device        | - جا ايد                 |
| STREETHER HEATINGS                             | . ⇔ <b>बह</b> ⊜ |                 | METaMethor Detection    | اما           | -                        |
|  |                 |                 | المتعنة                 | $1407 \times$ | · — - 1                  |
| Phon-é-al6                                     | 53              |                 | 2 FMDLaFelow Mechad     | 1 '(          | -                        |
| 1-i I Tacaapeeuul                              | 105             |                 | Askerting Lines:        | į             |                          |
| A.S-Tribeomoglecal                             | *2              |                 | 3 ND⇔ Not Determined    |               | - 3-53                   |
|  | !               |                 |                         |               |                          |

Comments: \* Presence entitles and, but less than matter desection it with the tentativety techniques and quantitatively extra sead.



### Nitroaromatics and Nitramines by HPLC USEFA Method 2323

Client Name: Pickers Research Corporation Client CT 9511141037

SEAS ID: 1418-3206-04

Date Ana gassi 11/23/95 Date Received: 11/16/95 Date Extracted, 11/23/94

| Cempoung           | MDL<br>us Neg | Cons<br>ug/E-g |
|--------------------|---------------|----------------|
| JUNE               | 28.1          | retMit         |
| RDX                | -10.0         | DMDL           |
| 1,3,5-TNR          | 46.8          | HWDL           |
| i.i-DND            | 17.1          | nn.            |
| เด                 | 20.6          | 146            |
| Telsyl             | 42.1          | NR             |
| 2,4,G-TIVT         | j 30.1        | BMTH.          |
| 2-An-DNT           | 34.1          | NB             |
| 4-4 <i>i</i> r-DNT | 45.5          | дн             |
| 2,4-DM./           | 111           | BMUL           |
| 2,9-DNT            | £1.9          | UMDL           |
| 2-ላተ               | 44.7          | NTR            |
| ] 4.5°C            | 96.3          | N5             |
| 3 YT               | 76.3          | 100            |

| Commonts: NH - Not Koguab | tod, BNDL – Helew reinsmum detection . | imult |
|---------------------------|--|-------|
| Armiyet: Eiter Tollman    | ()(a-                                  |       |
| Appreved:                 | <u> </u>                               |       |



### 1004 OSTER OFLISHTE - FRANKSYBLE, BILL-MARK BEACH - MAIL CHART

11/25/1995

### appraining Report

Clasmas Michaels Research Corporation — Atoms For Mertury 1810 C. Momorial Darwey Donubbille, AL 35815

Sapple You September (1971) Fale Received: 11/18/1995 Succhase Order Ma,; Quesc

Tab. Na : 1418 3258 04 Poso Campled: 1950-01-14 Time Sampled: 1877

| Pacameter | Acsolits   | Mechod | Smalfol Date | Time |
|-----------|------------|--------|--------------|------|
| Milrate   | 1.62 mg/kg | 4110E  | ec 11-30-95  | Into |

### NA 100 Seurces

MiA-Pass Makhods for Evoluation Solid Waste, 34-646 Std Sd. MiA-Mothesa for Chemical Analysis of Weter and Meston (1988) Obendard Methods for the Examination of moter and Masson Wolter, Dalle Etc. 40 One Harringh NTOAs Morres of Analytical Matheda (1984)

1418-3105

| astern | EAS         | Office (B) |
|--------|-------------|------------|
| South  | <u>4</u> 15 | AMELY LAS  |

# CHAIN OF CUSTODY/FIELD DATA SHEET

| My report of the control of the cont | Ā.              |              |          | Ģ.   | CESEPRES C                                      | 4              | •   | MOHAL MOIN  | я                 | ·š            |   |          |             |
|--|-----------------|--------------|----------|--|---|----------------|---|-------------|-------------------|---------------|---|----------|-------------|
| Virgina Virgin |                 |              |          |  | ļ   |                | <br> <br>   | 13/13/14    | CT CHAIR POSE     | _             | 184 0 14 6 14 14 14 14 14 14 14 14 14 14 14 14 14 |          |             |
| M/#:   C.P   | 3               | CLAN CONTACT | 1        | न्टमः <b>अत्रहत्ता</b> र   |   | ا <sub>ا</sub> | [   | HOLESTANA   |                   |               | TON JO JOECHU                                     | 2        | <b>\$</b> - |
| althic enecodemon  | TPE<br>GII DOUS | MATER<br>FCS | El de de | ı  | P'EDETNAT 4.                                    | Parallel V     | SOLLEGIES   |             | SIN WAS           | AN THE HEATER |   | Τ        |             |
| NER THE 953147530  | 1               |              | 45.14    | 2000   | ĸ.  | <br>           | 1   | 2,76        |                   | <br>          | -   | T        |             |
| 511 97.71.256  |                 | Shrip        | -        | ŝ  | 30,475  | <u> </u>       | ı   |             |                   | Ĺ             |   | Τ        |             |
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| 0.00   | +               | <u> </u>     |          | () (   | <u> </u>  |                |   | +           | -                 |               |   | <u> </u> |             |
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| 2007   |                 |              | i        | 5  | <br> -  | _              |   | -           |                   | i             | :   | Ţ        |             |
| 7.007  | +               | -            |          | W(Q.)  | Πİ  | ļ<br>~         | _   |             | -                 |               | <u> </u>  |          |             |
| (96)   | 1               | _            |          | 5.00   |   | <br><u>~</u>   | _   | L           | -                 | ļ.            | ļ   | Τ        |             |
| 7007   |                 | -            |          | ŝ  |   | •              |   | <br>-       | <u> </u>          |               | _   | Ţ        |             |
| 100%   | +               |              |          | 183<br>183<br>183<br>183<br>183<br>183<br>183<br>183<br>183<br>183 |   |                |   | -           | :<br><del> </del> |               |   |          |             |
| , 02.T   |                 | _            |          | 4  | _   | •.             |   |             | _                 | ļ.            | L   |          |             |
| 7,07   |                 |              |          | 10.7   | <u>-</u>  | <u> </u>       |   | 76.5        | -                 | _             | -   | Τ        |             |
| 5/07   |                 | -            |          | .5/.7/   | <u> </u>  | !<br>_~        | -<br> -   | ķ           | -                 | _             |   | Ι        |             |
| 1/0,   | -               | Ц            |          | i Id   |   | <u> </u>       |   | TBY         | <u> </u><br> -    | _             |   | T        |             |
|  |                 | .            |          |  |   |                | Ļ   | · .         |                   | <u> </u>      | L   | Ţ        |             |
| 0 ¹  |                 | ]<br>  -     | -        | 1 ;  |   |                | <u> </u>  | S IUMEII AV |                   | ĺ             |   | <u></u>  |             |
| -  | 4               | *            | E.       | į  | The state of the state of the party of the land |                | ٦,  | U.C.        | (HEP)             | SHEET CARCIE  | <b>~</b>  |          |             |
| FEMILES. Der erte 1. 1.  |                 |              |          |  |   |                |   | Į           | M 361             | LAC MENDA     | ζ,  |          |             |
|  |                 |              |          |  |   |                |   | 1<br>15     |                   |               | ļ   | ·-       |             |
| HECENÇED HECENÇD D   | ,               | T to         | THE      |  | 18800   | TEN INC        | WEARING THE STORY OF THE STORY | SQ ABCLES   | ADDULTO 03120A    | TUD (In       | Ę   | ž        |             |
| 1261 5. Gr. 164 K  | 1.50            | 1.11         | ٩<br>*   | ē  | TO SRAWSANCE YOUGH                              | )<br>**        |   |             | (d)               |               | 1=  | . 6      |             |
| -:   | <u></u>         |              |          |  |   |                |   |             | 5                 | ſ             |   |          |             |
|  |                 |              |          |  | !   | 45.02          | DODGAL HILL WINES   | <i>x</i> :  | İ                 |               |   | _        |             |
| <u> </u>   |                 | _            |          | ]<br>]   |   |                |   |             |                   |               |   |          |             |
|  | İ               |              |          |  |   |                |   |             |                   |               |   |          |             |

Chicken in which the property of some control of